

Chapter 4 Functions

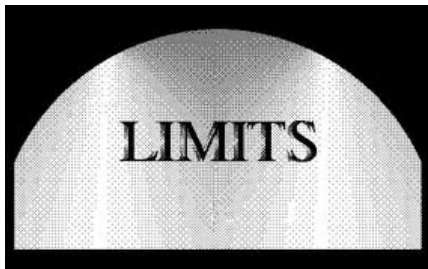
4.4 Activity Comparing Linear and Nonlinear Functions

Unit Question:

How do we function within the limits we have?

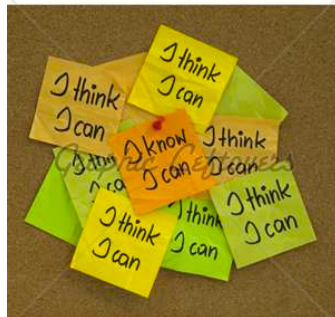
Learner Profile: Communicator

Area of Interaction: Environments



I Can Statement:

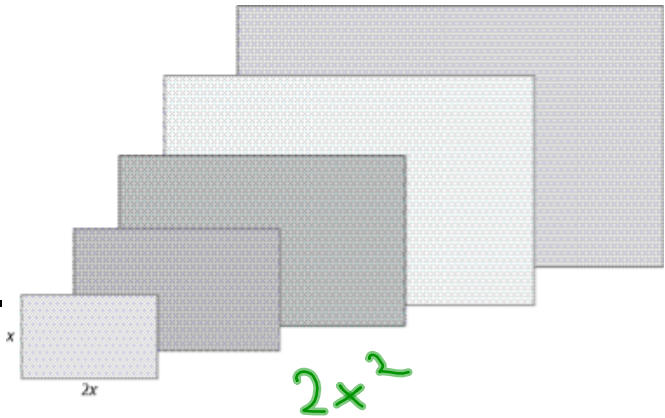
I can recognize when a pattern in real life is linear or nonlinear.



Work with a partner. Complete each table for the sequence of similar triangles. Decide whether each pattern is linear or nonlinear.

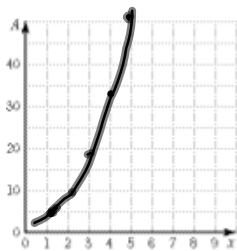
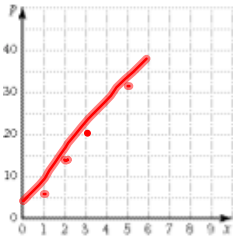
Decide whether each pattern is linear or nonlinear.

$2x + 4x$



x	1	2	3	4	5	6
p	6	12	18	24	30	36

x	1	2	3	4	5
a	2	8	18	32	50

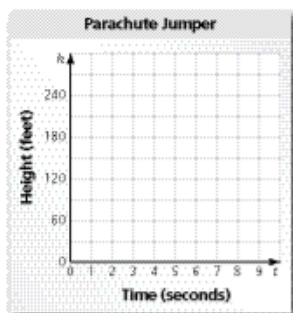


Activity 2

Work with a partner. The table shows the height h (in feet) of a falling object at t seconds.

- Graph the data in the table.
- Decide whether the graph is linear or nonlinear.
- Compare the two falling objects. Which one has an increasing speed?

t	0	1	2	3	4
h	300	285	270	255	240



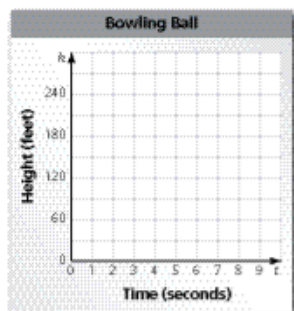
Predictions:

Activity 2

Work with a partner. The table shows the height h (in feet) of a falling object at t seconds.

- Graph the data in the table.
- Decide whether the graph is linear or nonlinear.
- Compare the two falling objects. Which one has an increasing speed?

t	0	1	2	3	4
h	300	284	236	156	44



Predictions:

What is your Answer?

3.IN YOUR OWN WORDS How can you recognize when a pattern in real life is linear or nonlinear? Describe two real-life patterns: one that is linear and one that is nonlinear. Use patterns that are different from those described in Activities 1 and 2.

Example:

How would a graph look about a trip to the mall?

Homework:

Finish Workbook p89-91

Textbook p170-171 1-6all